



## Thermistor overload relay for machine protection, 230V50/60Hz, without lock

**Part no.** EMT6(230V)  
**Article no.** 066400  
**Catalog No.** EMT6-230V

### Delivery programme

|                                                       |          |   |                                                        |
|-------------------------------------------------------|----------|---|--------------------------------------------------------|
| Product range                                         |          |   | EMT6 thermistor overload relay for machine protection  |
| Function                                              |          |   | Without automatic reset<br>Mains and fault LED display |
| <b>Rated operational current</b>                      |          |   |                                                        |
| AC-15                                                 |          |   |                                                        |
| 240 V                                                 | $I_e$    | A | 3                                                      |
| AC--14                                                |          |   |                                                        |
| 300 V                                                 | $I_e$    | A | 3                                                      |
| 400 V                                                 | $I_e$    | A | 3                                                      |
|                                                       |          |   | Wert gilt ab Release 001.                              |
| conventional thermal current                          | $I_{th}$ | A | 6                                                      |
| Rated control voltage                                 | $U_s$    | V | 230 V 50/60 Hz                                         |
| <b>Notes</b>                                          |          |   |                                                        |
| Observe manual MN03407006Z-DE/EN.                     |          |   |                                                        |
| Can be snap fitted on a top-hat rail to IEC/EN 60715. |          |   |                                                        |

### Technical data

#### General

|                                                                           |  |      |                                                                              |
|---------------------------------------------------------------------------|--|------|------------------------------------------------------------------------------|
| Standards                                                                 |  |      | IEC/EN 60947, VDE 0660, EN 55011                                             |
| Climatic proofing                                                         |  |      | Damp heat, constant, to IEC 60068-2-78; Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature                                                       |  | °C   |                                                                              |
| Open                                                                      |  | °C   | -25 - +60                                                                    |
| Enclosed                                                                  |  | °C   | - 25 - 45                                                                    |
| Storage                                                                   |  | °C   | - 45 - 85                                                                    |
| Mounting position                                                         |  |      | As required                                                                  |
| Weight                                                                    |  | kg   | 0.15                                                                         |
| Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27 |  | g    | 10                                                                           |
| Degree of Protection                                                      |  |      | IP20                                                                         |
| Protection against direct contact when actuated from front (EN 50274)     |  |      | Finger and back-of-hand proof                                                |
| Safe isolation to EN 61140                                                |  |      |                                                                              |
| between the contacts                                                      |  | V AC | 250                                                                          |
| between contacts and power supply                                         |  | V AC | 250                                                                          |

#### Auxiliary and control circuits

|                                                    |           |                 |                                    |
|----------------------------------------------------|-----------|-----------------|------------------------------------|
| Rated impulse withstand voltage                    | $U_{imp}$ | V AC            | 4000                               |
| Rated impulse withstand voltage                    | $U_{imp}$ | V AC            | 6000                               |
|                                                    |           |                 | Wert gilt ab Release 001.          |
| Overvoltage category/pollution degree              |           |                 | III/3                              |
| Terminal capacities Auxiliary and control circuits |           |                 |                                    |
| Solid                                              |           | mm <sup>2</sup> | 1 x (0.5 - 2.5)<br>2 x (0.5 - 1.5) |
| Flexible with ferrule                              |           | mm <sup>2</sup> | 1 x (0.5 - 2.5)<br>2 x (0.5 - 1.5) |
| Solid or stranded                                  |           | AWG             | 20 - 14                            |
| Terminal screw                                     |           |                 | M3.5                               |
| Tightening torque                                  |           | Nm              | 1.2                                |
| Tools                                              |           |                 |                                    |

|                                      |                |      |                           |
|--------------------------------------|----------------|------|---------------------------|
| Pozidriv screwdriver                 |                | Size | 2                         |
| Standard screwdriver                 |                | mm   | 1 x 6                     |
| <b>Auxiliary power circuit</b>       |                |      |                           |
| Rated insulation voltage             | U <sub>i</sub> | V    | 300                       |
| Rated insulation voltage             | U <sub>i</sub> | V    | 400                       |
|                                      |                |      | Wert gilt ab Release 001. |
| Rated operational current            | I <sub>e</sub> | A    |                           |
| AC--14                               |                |      |                           |
| Make contact                         |                |      |                           |
| 300 V                                | I <sub>e</sub> | A    | 3                         |
| 380 V 400 V 415 V                    | I <sub>e</sub> | A    | 3                         |
|                                      |                |      | Wert gilt ab Release 001. |
| Break contact                        |                |      |                           |
| 300 V                                | I <sub>e</sub> | A    | 3                         |
| 380 V 400 V 415 V                    | I <sub>e</sub> | A    | 3                         |
|                                      |                |      | Wert gilt ab Release 001. |
| AC-15                                |                |      |                           |
| Make contact                         |                |      |                           |
| 220 V 230 V 240 V                    | I <sub>e</sub> | A    | 3                         |
| 300 V                                | I <sub>e</sub> | A    | 1                         |
| 380 V 400 V 415 V                    | I <sub>e</sub> | A    | 1                         |
|                                      |                |      | Wert gilt ab Release 001. |
| Break contact                        |                |      |                           |
| 220 V 230 V 240 V                    | I <sub>e</sub> | A    | 3                         |
| 300 V                                | I <sub>e</sub> | A    | 1                         |
| 380 V 400 V 415 V                    | I <sub>e</sub> | A    | 1                         |
|                                      |                |      | Wert gilt ab Release 001. |
| Max. short-circuit protective device |                |      |                           |
| Fuse                                 | gG/gL          | A    | 6                         |

### Control circuit

|                             |                |                  |            |
|-----------------------------|----------------|------------------|------------|
| Rated insulation voltage    | U <sub>i</sub> | V                | 240        |
| Rated operational voltage   | U <sub>e</sub> | V                | 230        |
| Pick-up and drop-out values |                | x U <sub>e</sub> | 0.85 - 1.1 |
| Power consumption           |                |                  |            |
| AC                          |                | VA               | 3.5        |
| DC                          |                | W                | 2          |
| Trip at approx.             |                | Ω                | 3600       |
| Recovery at approx.         |                | Ω                | 1600       |

### Electromagnetic compatibility (EMC)

|                                                               |  |     |                                                                            |
|---------------------------------------------------------------|--|-----|----------------------------------------------------------------------------|
| Electrostatic discharge (ESD)                                 |  |     |                                                                            |
| applied standard                                              |  |     | IEC/EN 61000-4-2                                                           |
| Air discharge                                                 |  | kV  | 8                                                                          |
| Contact discharge                                             |  | kV  | 6                                                                          |
| Electromagnetic fields (RFI)                                  |  |     |                                                                            |
| applied standard                                              |  |     | IEC/EN 61000-4-3                                                           |
|                                                               |  | V/m | 80 - 1000 MHz: 10<br>1.4 - 2 GHz: 3<br>2.0 - 2.7 GHz: 1                    |
| Radio interference suppression                                |  |     | EN 55011<br>Class B                                                        |
| Burst                                                         |  | kV  | Supply cables: 2<br>Signal cables: 1<br>according to IEC/EN 61000-4-4      |
| power pulses (Surge)                                          |  |     | 2 kV (symmetrical)<br>4 kV (asymmetrical)<br>according to IEC/EN 61000-4-5 |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |  | V   | 10                                                                         |

Design verification as per IEC/EN 61439

|                                        |  |    |     |
|----------------------------------------|--|----|-----|
| Technical data for design verification |  |    |     |
| Operating ambient temperature min.     |  | °C | -25 |
| Operating ambient temperature max.     |  | °C | 60  |

Technical data ETIM 6.0

|                                                                                                                                                                                                                             |  |    |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------------------|
| Relays (EG000019) / Temperature monitoring relay (EC001446)                                                                                                                                                                 |  |    |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Temperature monitoring equipment (ecI@ss8.1-27-37-18-10 [AKF104011]) |  |    |                  |
| Type of electric connection                                                                                                                                                                                                 |  |    | Screw connection |
| Rated control supply voltage Us at AC 50HZ                                                                                                                                                                                  |  | V  | 230 - 230        |
| Rated control supply voltage Us at AC 60HZ                                                                                                                                                                                  |  | V  | 230 - 230        |
| Rated control supply voltage Us at DC                                                                                                                                                                                       |  | V  | 0 - 0            |
| Voltage type for actuating                                                                                                                                                                                                  |  |    | AC               |
| With detachable clamps                                                                                                                                                                                                      |  |    | No               |
| Number of measuring circuits                                                                                                                                                                                                |  |    | 1                |
| Error registration possible                                                                                                                                                                                                 |  |    | No               |
| External reset possible                                                                                                                                                                                                     |  |    | No               |
| Number of contacts as normally closed contact                                                                                                                                                                               |  |    | 1                |
| Number of contacts as normally open contact                                                                                                                                                                                 |  |    | 1                |
| Number of contacts as change-over contact                                                                                                                                                                                   |  |    | 0                |
| Width                                                                                                                                                                                                                       |  | mm | 23               |
| Height                                                                                                                                                                                                                      |  | mm | 84               |
| Depth                                                                                                                                                                                                                       |  | mm | 104              |

Approvals

|                                      |  |  |                                                      |
|--------------------------------------|--|--|------------------------------------------------------|
| Product Standards                    |  |  | UL 508; CSA-C22.2 No. 14; IEC/EN 60947-8; CE marking |
| UL File No.                          |  |  | E29184                                               |
| UL Category Control No.              |  |  | NKCR                                                 |
| CSA File No.                         |  |  | 12528                                                |
| CSA Class No.                        |  |  | 3211-03                                              |
| North America Certification          |  |  | UL listed, CSA certified                             |
| Specially designed for North America |  |  | No                                                   |
| Max. Voltage Rating                  |  |  | 600 V AC                                             |
| Degree of Protection                 |  |  | IEC: IP20, UL/CSA Type: -                            |

## Characteristics

A1/A2

T1/T2

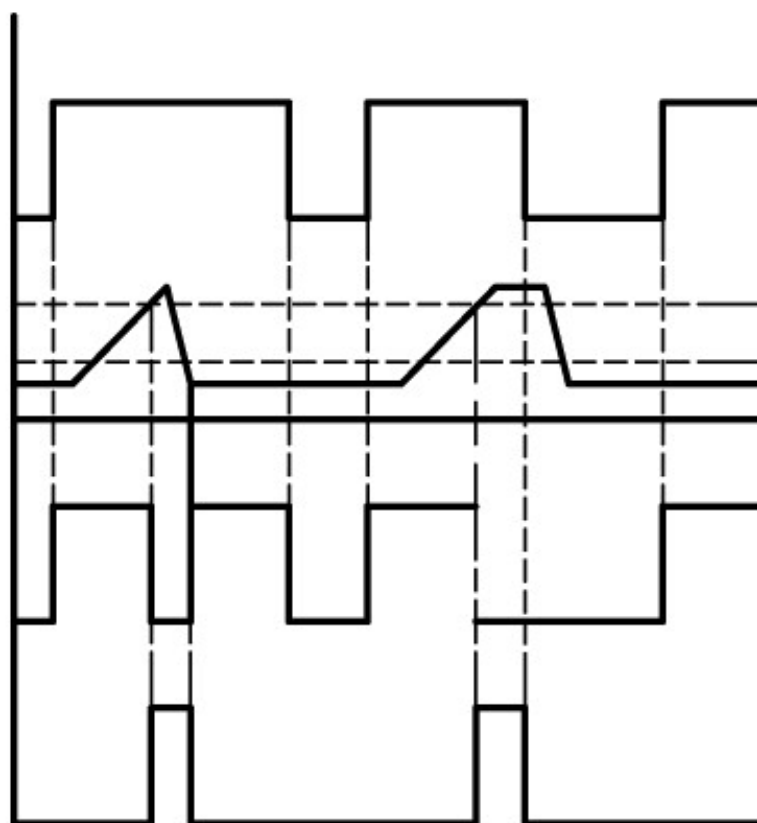
3.6 K

1.6 K

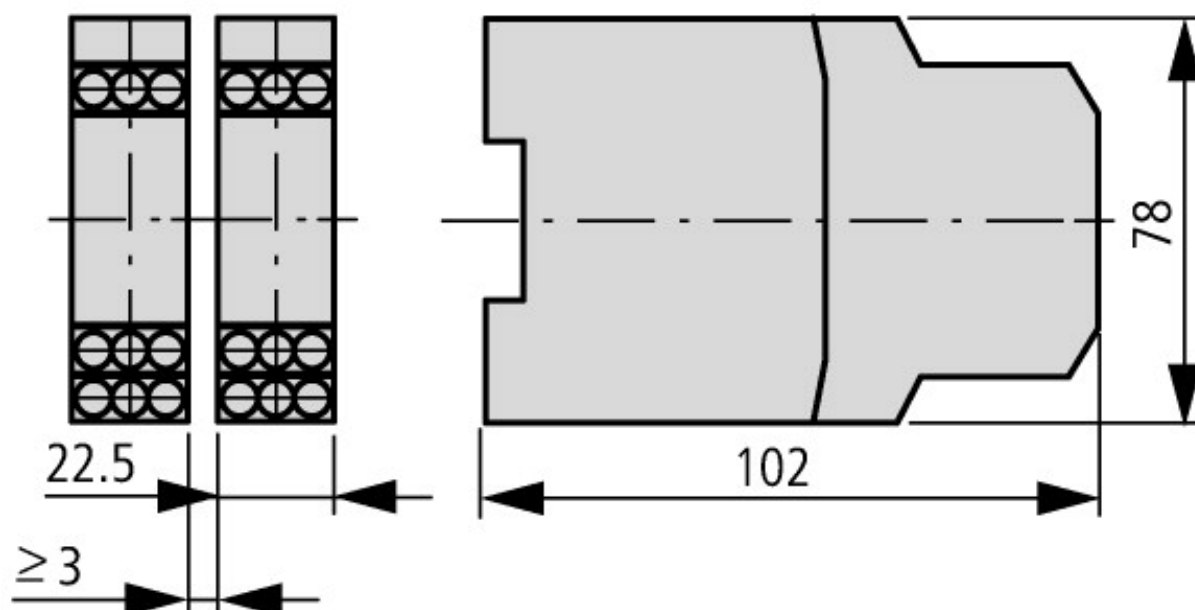
0

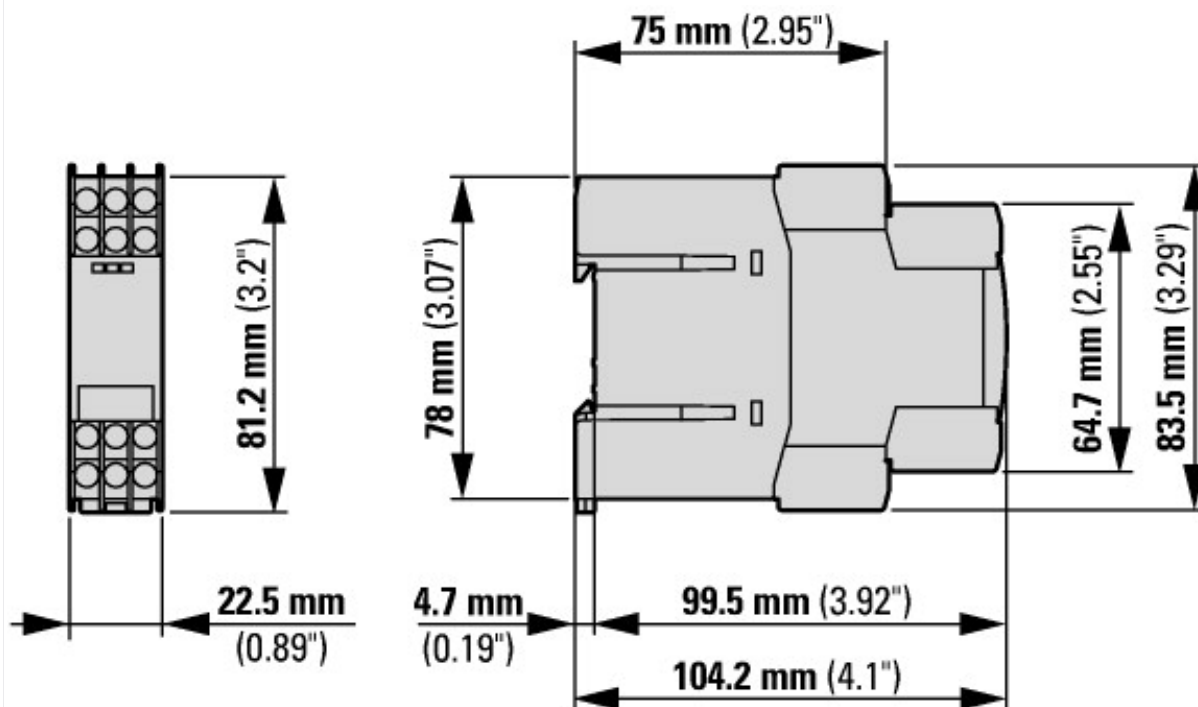
13–14, 21–22

Tripped LED



## Dimensions





Applies to release 001 and higher

## Additional product information (links)

### IL03407100Z (AWA2327-1454) thermistor overload relay for machine protection

IL03407100Z (AWA2327-1454) thermistor overload relay for machine protection

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407100Z2014\\_11.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407100Z2014_11.pdf)

### MN03407006Z (AWB2327-1446) EMT6 machine protection relays - overload monitoring for machines in Ex e areas

MN03407006Z (AWB2327-1446) EMT6 machine protection relays - overload monitoring for machines in Ex e areas - English

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN03407006Z\\_DEEN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03407006Z_DEEN.pdf)

terminal markings and sensor circuit

<http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=6.21>